

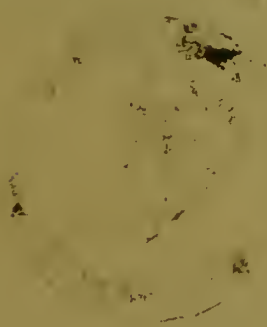
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MENTONE,

IN

ITS MEDICAL ASPECT.



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2,

IN

ITS MEDICAL ASPECT:

BEING

LETTERS ADDRESSED TO A MEDICAL FRIEND.

BY

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MDCCCLXIII.

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TO

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OF MEDICINE, UNIVERSITY COLLEGE, LONDON; ETC. ETC.;

IN ACKNOWLEDGMENT OF THEIR

INVALUABLE TEACHINGS,

AND OF THEIR GREAT PERSONAL KINDNESS IN

REPEATED ATTACKS OF ILLNESS,

THE FOLLOWING PAGES ARE GRATEFULLY INSCRIBED,

BY

THEIR FRIEND AND FORMER PUPIL,

THE AUTHOR.

MENTONE,

IN ITS MEDICAL ASPECT.

LETTER I.

PRELIMINARY REMARKS.

MY DEAR DR. * * *

You have long wished me to send you some account of Mentone ; I have therefore great pleasure in now laying before you my experience of the last two winter seasons, and the observations I have been enabled to make on the climate, with reference, more especially, to invalids suffering from diseases of the lungs.

Mentone is situated on the northern shore of the Mediterranean, in $43^{\circ} 45''$

latitude, and at a distance of thirty-two kilomètres, nearly twenty English miles, to the east of Nice. This district and that of Roceabruna were purchased in 1860, from the Prince of Monaco, by the French Government ; it is at the extreme limit of the Empire, the Italian frontier being at the Pont St. Louis, within two miles of the town. The territory of Mentone extends along a small gulf, from the Cape of St. Martin on the western side to Cape Murtola on the eastern ; it is subdivided into two small bays, of nearly equal size, by a spur of the mountain range running down into the sea. On this slope, down to the beach the town is situated, whilst on either bay are scattered, chiefly along the seashore, the principal boarding establishments, and a number of villas and larger houses letting in flats. The Cornice road runs through the lower part of the town from east to west, constituting the main street ; in this part, called the “new town,” the houses are

large and well constructed ; in many, apartments can be obtained for the winter. Here also are to be found the Post Office, the principal hotels, shops, and market places. The “ old town ” is chiefly formed of steep and narrow streets, the houses ruinous and often squalid-looking ; this part ought to be specially avoided by the invalids. On the summit of the ridge, just above the town, are the picturesque remains of an old château ; two towers alone are left. The place is now used as a cemetery.

The main street is swept several times a day, and is very clean for a continental town ; the narrow by-streets are rather objectionable, but no visitor is obliged to pass through them. The town council have done much already towards improving the sanitary condition of Mentone. The villas and apartments outside the town, where visitors chiefly reside, are surrounded by gardens, and with proper management are easily kept clean. Cesspools are universal ;

and as they are generally sufficiently large not to require emptying before the end of the season, they need cause no annoyance.

Between the two bays there is a slight difference in the climatic conditions, the eastern being slightly the warmer of the two, for the reason that the mountains come nearer to the sea. In the western bay the mountains are further back, whilst four torrents, for the most part dry or nearly so, run through it on their way to the sea, and are apt to act as channels for currents of cold air ; but on the other hand, the lateral valleys offer a complete shelter when the wind blows off the sea, as is frequently the case in the daytime.

Mentone has acquired a well-deserved name for beauty of scenery ; the gardens near the sea and the lower part of the hills are arranged in terraces and planted with orange and lemon trees, which flourish here in the open air, and bear valuable crops. The Mentone lemons, especially when

gathered in the summer, have a very high reputation; they have the advantage of keeping a long time and bearing distant journeys; they used to be largely exported to America before the present war. The olive trees, peculiarly large and beautiful at Mentone, flourish by the sea and to some height up the hills, their peculiar sombre hue being a great feature in the landscape, and contrasting well with the brighter tint of the pines which abound on the heights. The background is formed of barren, rocky peaks, which in the clear atmosphere appear less distant and elevated than they really are. The flora of the district is peculiarly rich, and offers a fair field of occupation and enjoyment to the botanist; M. Ardoino has calculated that there are no less than a thousand botanical specimens here, viz., as many as can be found in the whole of Ireland.

I have found in Mentone a very pleasant, quiet country home, where the rest and pure

air, so necessary to invalids, may be fully enjoyed ; and in my own case I have experienced great benefit from my sojourning here, being now, comparatively speaking, restored to health. But climate alone has not effected this ; I have never relaxed for a moment from all the care and precautions I should have taken had I remained in England. In fact, I look upon a mild winter climate as an adjuvant merely in the treatment of most diseases ; the invalid being by its means placed in more favorable hygienic conditions, he can almost daily enjoy sunshine, fresh air, and exercise, whereby it is probable that digestion will be improved, sleep rendered more sound and refreshing, and the strength generally recruited. I consider it important to impress on the invalids and their friends the necessity of great precautions, as they are too apt to think that the mere fact of their being in a southern climate ought to be fully sufficient to restore them to health,

and that they may, whilst here, do with impunity whatever they please. I have unfortunately too often witnessed the ill effects of such inconsiderate behaviour; even persons in good health are apt to suffer unless they take some amount of care during the periods of bad weather which occasionally occur at Mentone as elsewhere.

Too much stress has, perhaps, been laid on the excellence of the winter climate of Mentone, and the expectations of the visitors have thereby been unduly raised. No greater mistake could be made than to expect here perpetual sunshine and a perfectly equable temperature; a certain number of rainy, cloudy, and windy days do occur, as my weather-table shows; a moderate amount of cold must be anticipated and provided for. On the whole, I consider the climate to be rather dry, but this quality is moderated by the sea-breezes which bring with them a certain amount of moisture. From November to March it is

decidedly bracing, without being stimulating, except to some few unfavorable cases, more especially when they reside in the immediate proximity of the sea. Many persons, particularly this season, have expressed themselves greatly disappointed with the climate, but you will have seen by the papers how very inclement the winter has been this year throughout the south of Europe. Mentone has certainly suffered less than most places in the neighbourhood. During November and January we had an unusual amount of rain, and on several occasions the weather at sea was very stormy ; but on either side of us the rains were much worse, causing vast inundations ; thus, at Arles and on the road between Toulon and Cannes, so much so, as seriously to interfere with the comfort of the travellers. The same state of things occurred in the neighbourhood of Genoa.

Several weeks' residence are required before one can really appreciate all the

advantages of this climate, and ere the time comes for leaving Mentone few there are who remain discontented. The bad weather seldom endures more than three or four days at a spell; the sun soon bursts out anew in all its glory and warmth, and from its temporary absence is the more grateful when it does return. These atmospheric vicissitudes are trying at the time to the spirits, and demand, of course, greater precautions from the invalid, but experience shows that they really need not be, with such precautions, injurious to health.

I hope to prove to you that Mentone offers most of the characteristics required to constitute a really good winter climate, viz., generally bright, sunshiny weather, allowing of daily exercise in the open air; a moderate proportion of rainy days, no very great amount of cold, a moderate daily range of temperature, and an almost complete exemption from winds from the north, north-east, and north-west, which are the

coldest winds in Europe. Added to this is the important consideration that a cheerful influence cannot fail to be exerted on the minds of invalids by the beautiful scenery around us, with its refreshing, evergreen vegetation. There is one negative feature in the climate, which, in my opinion, ought to be held among its greatest advantages, namely, that no endemic disease whatever exists in the district ; therefore persons who come here to get rid of one affection have not, as in so many other places of winter resort, to dread in exchange the accession of fevers, dysentery, or diarrhœa.

Although Mentone has been a place of fashionable resort for the last five or six years only, many special publications on its climate and other features have already appeared. Among the English works I may mention Dr. Henry Bennet, ‘ *On Mentone, the Riviera, Corsica, and Biarritz, as Winter Climates* ;’ Mr. P. C. Price, ‘ *The Winter Climate of Mentone* ;’ and Dr. Edwin Lce, ‘ *A*

Notice of Mentone ;’ also a non-medical work by Mr. Augustus Hare, ‘*A Winter at Mentone,*’ which contains an entertaining description of the scenery and excursions in the neighbourhood. Among the French writers are Dr. Bottini, ‘*Menton et son Climat ;*’ Dr. Bonnet de Malherbes, ‘*Du choix d’un Climat d’hiver dans le traitement des affections chroniques de la poitrine,*’ from which valuable publication we learn that this gentleman’s personal experience leads him to prefer Mentone to all other places of winter resort. Dr. Pietra Santa, who was last year selected by the Emperor of the French to investigate the different climates of the south of France and the Riviera, has just recorded in a pamphlet some of the results he obtained :—‘*Les Climats du midi de la France ; premier rapport à S. E. le Ministre d’Etat.*’ Dr. Farina has just published an opusculé, ‘*Essai climatologique sur les différentes régions de Menton.*’

Several non-medical books have also been

published. M. Ardoino, a native of Mentone, has lately produced an excellent flora of the district, under the title '*Catalogue des plantes vasculaires qui croissent spontanément aux environs de Menton et de Monaco.*'

M. Abel Rendu has given, in '*Menton, Monaco, et Roccabruna,*' a history of the old principality of Monaco, and an interesting description of the country. Lastly may be mentioned, '*L'hiver à Menton,*' by A. de Longpérier Grimoard.

LETTER II.

CLIMATOLOGY.

MY DEAR DR. * * *

I will now enter into more minute details as to the various conditions of the atmosphere which constitute the climate of Mentone. We certainly are by no means exempt from all vicissitudes and inclemencies of weather, but they affect us only in a moderate degree and during short periods.

We have, thanks to resident observers, accurate records of the weather for many years past; the averages of temperature and of rainy days obtained from these documents give us a very good idea of the

general condition of the winter climate of this town.

These observations were made by Monsieur Jérôme de Monléon, from 1818 to 1844, and by Monsieur de Bréa, from 1851 to 1860; Dr. Farina is now continuing them.

Temperature.—Any great amount of frost is exceedingly rare at Mentone; if the thermometer falls below freezing-point, this is just before sunrise, which here, as elsewhere, is the coldest period in the twenty-four hours, and it soon rises again. We gather this, not merely by a reference to the tables of observation published, but also by the evidence of the vegetation. The lemon trees, which thrive so well at Mentone in the open air, would be killed were the thermometer to fall lower than 3° C. (about 26.5° Fahr.) The last occasion on which this occurred was in the year 1820, more than forty years ago. The orange trees die

at a temperature of 6° C. (about 21° Fahr.), and there are some at Mentone which are stated to be upwards of one hundred years of age. Monsieur de Monléon has seen the glass fall below freezing-point on three occasions during a period of twenty-seven years, viz., in 1820, 1838, and 1842. The lowest temperature recorded by Monsieur de Bréa was 32° . In January, 1862, the glass fell slightly below 32° in some places, and the lemons, a very fine crop just then, were frozen on the trees, inflicting great loss on the proprietors; the trees themselves were not injured.

It is by no means unusual to find during three or four mornings a thin coating of ice over stagnant water in some open and exposed situations, and this although the thermometers in the neighbourhood do not register a temperature even approaching to freezing-point. Many invalids who heard of ice having been found at Mentone were greatly alarmed, as they feared colder

weather was coming on. The probable explanation seems to be that there is at times during the night a current of cold air, sufficient to produce a film of ice over stagnant water. I have seen this occur in the fountain of my garden on five successive mornings in December, 1862, the minimum temperature recorded by my thermometer being respectively 35° , 40° , 31° , 33° , and 39° .

The mean temperatures for ten years, as given in the tables of M. de Bréa, are as follows :

January . . .	$9^{\circ}3$	Cent.	$48^{\circ}75$	Fahr.
February . . .	$9^{\circ}5$	„	49°	„
March . . .	$11^{\circ}6$	„	$52^{\circ}9$	„
April . . .	$14^{\circ}6$	„	$58^{\circ}3$	„
May . . .	$17^{\circ}8$	„	64°	„
June . . .	$21^{\circ}6$	„	$70^{\circ}9$	„
July . . .	$24^{\circ}1$	„	$75^{\circ}4$	„
August . . .	$24^{\circ}1$	„	$75^{\circ}4$	„
September . .	$20^{\circ}8$	„	$69^{\circ}5$	„

October . .	17°·9 Cent.	64°·2 Fahr.
November .	12°·2 „	54° „
December .	9°·5 „	49° „

The maximum amount of heat ever observed at Mentone was 32° C. (about 90° Fahr.). This occurred but once in a period of thirty-seven years; the average extreme temperature being rather below 80°. Some English people have stayed here all the summer without inconvenience, and some invalids, far gone in consumption, have actually done well and gained strength. The principal drawback is, that the difference of temperature is very slight between day and night, and refreshing sleep may, on that account, be difficult to obtain.

This small daily range of temperature is one of the most important features of the Mentone climate, and by no means the least favorable. The greatest range during the twenty-four hours recorded in my tables for 1861-2 is 15°·5 Fahr. During the last

winter, a most inclement one for Mentone, the range was once as much as 23° . The following I found to be the mean daily range for each month :

October, 1861	.	.	$8^{\circ}\cdot 1$	Fahr.
21 days of November	.	.	$7^{\circ}\cdot 6$	„
December	.	.	$7^{\circ}\cdot 8$	„
January, 1862	.	.	$8^{\circ}\cdot 1$	„
February	.	.	$9^{\circ}\cdot 1$	„
March	.	.	$10^{\circ}\cdot 1$	„
April	.	.	$12^{\circ}\cdot 7$	„

Thus the range of temperature is least in the colder months—another very important fact to notice.

Snow.—The lower mountains which shelter Mentone, and the only ones visible from the seashore, are generally free from snow. Two or three times during the winter they are covered with a white mantle, but after a few days of sunshine this gradually disappears. Snow occasionally falls at Men-

tone. I observed the ground covered with it one morning in January, 1862, but all traces of it disappeared the same day after a shower of rain. During the last winter (1862-63) no snow fell on the hills within three miles of Mentone.

Rain.—The average number of rainy days, as calculated from the records of ten years, amounts to 80·8 per annum. The greater amount of rain which fell during last season is, therefore, not to be wondered at, when we find that there were only 47 rainy days during the year 1861. There were 89 rainy days in 1862, and 13 already in January, 1863. The most rainy months are November (9·4 days on the average), May (9·3 days), and October (9 days). Thus you will see what a small proportion of rainy days we have at Mentone compared with England. This difference is, however, more real yet than would appear by looking at the tables. On many

of these 80 days the rain fell only during the night or part of the day ; and although rain generally falls heavily at Mentone, the earth absorbs the water speedily, and the sun soon dries up what is left on the surface, so that there are but very few days during which the invalid is debarred from his usual out-door exercise, and confined to the house on account of the rain. During the very wet weather the air feels chilly, and even cold, but the houses are substantially built, and with a small wood fire the invalid runs no risk, if at all prudent, of suffering from damp. Those who are less careful (and this applies chiefly to persons in health) are apt to suffer at such times from sore throat, rheumatic pains, and neuralgia, but the return of bright, warm, sunshiny weather soon disperses these ailments. I have never seen either mists or sea-fogs at Mentone, even during the very damp winter we have just experienced.

Winds.—The several chains of mountains at the back of Mentone almost entirely shelter it from the coldest winds of Europe, viz., the north, north-east, and north-west winds. This mountain screen is thus described by M. Ardoino, in the preface to his ‘Flora of Mentone’:

“The most important of those secondary chains which bifurcate from the central ridge of the Maritime Alps is the one which, branching off at the Mont Clapier (3070 m.) to the west of the Col de Tende, runs straight out towards the sea. To the south of the Col de Brauss, just above the village of Castillon, this chain branches off suddenly at an almost right angle, running in a semicircle; one side forms the peaks of Rasel (1260 m.), of Grammont (1378 m.), of Bress (1100 m.), and ends at Cape Murtola, a little to the east of Mentone; the other forms the peaks of Cima d’Ours (1210 m.), of the Aiguille (1290 m.), of the Aggel (1137 m.), of Testa del Can (550 m.),

ending in Cape d'Aglio, a short distance west of Monaco. The space enclosed by this segment of a circle is the soil of our flora. Although more than twice the extent of the ancient principality of Monaco, it has a surface of but seventy-five square kilometres, and comprises the territories of Mentone, Castellar, St. Agnes, Gorbio, Roccabruna, and Monaco, as well as part of those of Ventimiglia, Castillon, and Turbia.

“ I can confidentially affirm that there is nowhere else on the shores of Europe so small a locality surrounded by mountains of an equal altitude. The gigantic and continuous screen which exists to the north of Mentone consists of a series of peaks the mean height of which exceeds 1200 metres, and these peaks are connected by passes, the lowest of which yet reach an elevation of 900 metres, the only exception being the Col de Castillon, which is but 720 metres. I need add no more to prove how favorable

must be the meteorological conditions induced by such a conformation of this part of the world. I can only wonder that details so full of importance have not been mentioned by the special writers who have, within the last few years, directed their attention to the climate of Mentone."

Dr. Carrière has observed that the near proximity of the high mountains to the sea, and the extreme narrowness of the level seaboard, are other sources of shelter from northerly winds. Thus these pass out to sea, agitating it in the distance, whilst calm reigns at Mentone itself—a state of things the most casual observer will many times be able to verify, during a sojourn of a few weeks in the winter season.

The Capes Murtola and St. Martin, which project into the sea on either side of Mentone, greatly modify the intensity of the east and west winds, although they do not by any means entirely intercept them. The town and neighbourhood lie quite

exposed to all winds from the south-east, south, and south-west.

Dr. Bottini, in his work, gives the following table of the prevailing winds during the year 1861 :

East wind . . .	94 days.
South wind . . .	74 „
South-west wind . . .	54 „
South-east wind . . .	54 „
North-east wind . . .	13 „
West wind . . .	8 „
North-west wind . . .	3 „
North wind . . .	1 „
Changeable wind . . .	25 „
Perfect calm . . .	39 „

The wind was rather violent during 78 days in the year, and, as may be seen by referring to the table, it did not then blow always from the coldest quarters. The north-east wind is the coldest wind at Mentone. The *mistral*, the dreaded north-west wind of Provence, seldom blows here

from the north-west, and even then is deprived of much of its violence and coldness, but is still extremely disagreeable. It more generally comes to us from a westerly or south-westerly direction, being deflected by the mountains, and greatly modified by having passed over a large expanse of water; it retains, however, a peculiar keenness, and is rather trying to persons subject to rheumatic and neuralgic pains.

High winds more generally occur in the spring months, the end of February and beginning of March; but in the lateral valleys, some short distance from the sea, the atmosphere is at those times almost calm. The wind seldom becomes at all violent before eleven o'clock in the morning, and subsides generally at sunset; the residents are so well aware of this that they generally go out before ten, so as to secure an hour's pleasant exercise; and I have found it desirable to advise my patients to do likewise. If the wind does subsequently

become unpleasant, they can then more easily brook confinement within doors for the rest of the day.

Water.—It is very often the case that at seaside places the drinking-water is bad and unpleasant to the taste. We are more fortunate at Mentone, as the water, though hard, is clear and tasteless. The fountains give the purest water. According to Dr. Bottini's analysis, it is neither acid nor alkaline, and contains a small quantity only of sulphates, chiefly sulphates of lime and magnesia. The water of the wells is, however, much harder, containing a larger proportion of sulphate of lime. The water varies somewhat in composition with each locality, and in some villas it contains so much of the sulphate of lime as to be extremely difficult of digestion. In most cases the constipating effect of the water is beneficial rather than otherwise, as it counteracts the disposition to diarrhœa,

which is so frequent and troublesome a complication of phthisis. I have known one case however, in which diarrhœa was caused by the water, although the other members of the family were affected by it in the usual way. In some persons who allowed themselves to become constipated a certain amount of irritation resulted, nearly amounting to inflammation, accompanied by diarrhœa and intense pain. Persons who habitually have some difficulty of digestion must, if they cannot obtain pure spring water, confine themselves to the use of distilled or rain water, or else procure some aërated water. This is a serious drawback to the otherwise excellent qualities of the Mentone climate.

LETTER III.

PREVAILING DISEASES.

MY DEAR DR. * * *

The knowledge of the diseases common to any locality resorted to by invalids is highly important, as it must be considered the surest test of the healthiness of the district. You will agree with me that a few months' residence here would scarcely entitle any physician to speak with authority on the subject, even if he knew the dialect used by the lower classes, and his health allowed him to visit the hospital and the dwellings of the poor. Under these circumstances I shall avail myself of Dr. Bottini's experience on the subject, and think I shall but do that author justice if I translate his chapter "Des Maladies

dominantes.” At the same time I beg to state I do not endorse all his theories.

“There are at Mentone no endemic diseases, the causes which generally produce them being absent.

“Epidemic diseases do not occur to any great extent. During the last twenty years I have never known scarlatina, measles, or hooping-cough, to assume a serious aspect.

“Smallpox, except in a limited number of cases, takes the form of varioloid. I consider this to be due to the fact that both Dr. Farina and myself practise vaccination every year.

“Asiatic cholera, which in 1854 spread such desolation and woe throughout the Genoa Riviera, did not show itself at Mentone.

“Typhoid fever,* however, did occur, but the fatal cases were few.

* There occur occasionally some sporadic cases of typhoid fever among the visitors, the disease being contracted on the journey hither, and showing itself soon after

“Pleurisy, pneumonia, bronchitis, cynocha, angina, and acute rheumatism, occur during the winter season and those periods of autumn and spring when there are great alternations of temperature.* I must add, however, that inflammatory diseases are not so serious in this town as in other places.

“A few cases of diarrhoea, dysentery, and some gastro-enteritic affections, occur during the summer. Encephalitis and ophthalmia are apt to affect those who expose themselves unprotected to the sun's rays.

“Apoplexy is of frequent occurrence ; their arrival. There were several cases in 1862-63, clearly traceable to the floods around Arles and Fréjus, through which travellers had to pass. No deaths, however, ensued.

* During the last winter, in consequence probably, of the unusual amount of rain, a slight epidemic of influenza was observed, affecting both the residents and visitors ; it attacked chiefly the healthy, no doubt from their having incautiously exposed themselves to the inclement weather ; some few invalids suffered likewise, but to a slight extent only.

this is owing to the fact that the poorer classes partake freely of rum and brandy instead of wine, the cost of this latter beverage having greatly increased since the vine disease. The excessive use of wine and spirits also causes among the poor gastritis and enteritis.

“In the entire population of Mentone I can reckon only six mad people, seven idiots, and four epileptics.

“Gravel, gout, and diseases of the skin, are seldom met with.

“Intermittent fevers, which in low-lying districts are so prevalent, are very rare indeed at Mentone.

“Chronic inflammation of the liver and spleen, endemic in damp countries, and causing so many ailments which go by the name of cachexiæ, is never met with here. Erysipelas is frequent, being due either to abuse of spirituous liquors, or sudden chills taken when the body is heated.

“Fevers of a low type, formerly very

scaree, now occur more frequently since the manifestation of those cosmo-tellurie conditions which have favoured the generation of oïdium.

“ Although dogs are very numerous here, no case of hydrophobia has ever occurred.

“ There are in the town but two cases of goitre. Vesical calculi are so rare, that during my long residence in Mentone I never met with a single case of the affection. Diseases of the generative organs in women are very rare, and when they do occur they generally are the consequences of childbirth. There are but few cases of cystitis and catarrh of the bladder, and these chiefly among elderly people.

“ Diseases of the heart and large vessels are neither of common occurrence nor unheard of. Rachitis, syphilis, and cancer, are so scarce that it is hardly worth while to allude to these diseases.

“ There is no case of lepra, although this repulsive disease occurs at Turbia, a village

a few miles only from Mentone. There are six deaf and dumb, and eleven blind people, none of whom were born blind.

“Scrofula is frequent among the natives, but chiefly affects children, and generally disappears at the age of puberty. Strangers affected by it are cured by this climate. The causes of scrofula at Mentone are the bad feeding of the common people, and the frequency of intermarriages. To these a third cause must be added, viz., the habitations of the poor are very small, a whole family often living in one or two rooms. The quantity of air these contain is insufficient, it soon becomes vitiated and overloaded with carbonic acid, for it has been proved that every man consumes six cubic mètres of air in an hour.

“The frequency of scrofula and the rare occurrence of phthisis at Mentone, prove that these two affections are of a different nature, although often due to the same causes.

“Two other diseases occur among women here—ehlorosis and hysteria ; preparations of steel always remove the former, but the latter, though seldom very severe, often resists all therapeutical remedies. I believe that these two diseases are due to one and the same cause, the almost exclusively vegetable diet of the poor.

“Dr. Richelmi states he never saw phthisis at Mentone, whilst Fodéré, on the contrary, asserts that it is very frequent. My researches and long practice in this town have enabled me to solve the question, and I can affirm, without any prejudice, that if pulmonary consumption is not unknown at Mentone, it is there of very rare occurrence. According to my statistics, out of every fifty-five deaths among the natives, one only is due to phthisis ; this is a very small proportion indeed, when we bear in mind that Joseph Frank states, in his report, that there will hardly be found one physician throughout Europe who does not reckon

ten cases of consumption out of every thirty of his private patients ; that consumptive patients constitute one fourth of all hospital cases ; and that one fifth of the total number of deaths is to be ascribed to this complaint.

“The small mortality from phthisis at Mentone will become more evident if we compare it with that of other towns, as stated in the tables published by Andral.

“ Stockholm	.	.	1 in 16.
“ Berlin	.	.	1 in 15.
“ Vienna	.	.	1 in 11.
“ Munich	.	.	1 in 10.
“ London	.	.	1 in 5.
“ Paris	.	.	1 in 5.
“ Marseilles	.	.	1 in 4.
“ Geneva	.	.	1 in 6.
“ Naples	.	.	1 in 8.
“ Rome	.	.	1 in 20.
“ Algiers	.	.	1 in 25.
“ Genoa	.	.	1 in 13.

“ Amsterdam . . . 1 in 4.

“ Whilst we find there
is at Mentone . . . 1 in 55.”

Dr. Bottini further states that the mean duration of life among the native inhabitants of Mentone is forty-five years. Also that nine out of every thousand inhabitants live beyond eighty years of age, whereas in France, according to Chambrol, only one out of four hundred and eighty persons attains that age.

LETTER IV.

PRACTICAL EXPERIENCE OF THE CLIMATE.

MY DEAR DR. * * *

In my previous communications I have given you some details on the most important points of the climatology of Mentone. It is now time I should come to the more practical part of the subject, and relate to you the result of my observations on the progress of various diseases, for the alleviation and cure of which invalids are sent to winter here.

First in the list, on account both of its gravity and its frequency, stands pulmonary consumption. Many climates have been extolled for the benefits they have produced in some cases, but none has hitherto been found to answer every expectation; this is

shown by the fact that new winter climates are still eagerly sought for and advocated every year. Although Mentone is far from perfection in many ways, yet such favorable results have been obtained in so few other localities, that it deserves to rank high in public estimation.

So much is written in the present day about the curability of phthisis, that I attempted to state my views on this matter. A few years ago all such cases were at once considered as lost, and the fatal end was a mere question of time. Great progress has certainly been made of late in the pathology of that disease, and I think we are fully justified in believing that, in well-selected cases, an arrest of the morbid processes may be expected and a certain amount of reparative action set up; but it seems most probable that actual cure never does occur. Phthisis is confessedly a blood disease, or according to a few observers, a disease pro-

duced by an impoverished condition of the blood, in consequence of which a peculiar exudation takes place in the lungs. I do not believe that, by remedying the condition of the system, this deposit will be so completely removed as to leave no trace whatever of its presence in the lungs. Moreover, the blood is seldom, if ever, restored to a healthy condition, and the system at large never returns to perfect health; for in all cases of so-called cured phthisis which have fallen under my notice I have invariably found symptoms of *spanæmia*, paleness of the mucous membrane, languor, inertia, and an habitual sensation of lassitude after even a moderate amount of exertion.

It is said by some that tubercles may be eliminated by absorption, by calcification, or by ulceration. There is no positive evidence of the absorption of tubercles. I know one case in which this is said to have occurred; there could have been no mistake

as to the original diagnosis of the case, and I am assured no physical signs now remain. We must confess that our means of detecting disease in the lungs are very imperfect. We cannot be sure that tubercles are not left after the removal of the accompanying congestion, in so small a quantity as not to produce the usual signs ; moreover, the supervention of emphysema, so common in such cases, would easily mask these physical signs.

Calcification of tubercles is undoubtedly one of the ways in which arrest of phthisis may occur ; but, is the presence of these cretaceous bodies inert ? They must, at least, act as foreign substances in the lungs, keep up in them a certain amount of local congestion, and to some extent prevent the entrance of air into a portion of the pulmonary organs. If the disease has been of any extent, a certain area of dulness is generally found on percussing the chest in the most favorable cases of this kind, with a deficient

amount of vesicular breathing sounds; we have a state of things somewhat similar to that of hepatization in chronic pneumonia, which no one would call cure.

Ulceration, which brings about the removal of tubercles by producing cavities in the lung, is stated likewise to be a mode of cure of the disease; and certainly, in a few favorable instances, we find cavities ceasing to enlarge, no longer secreting purulent matter, gradually disappearing by the collapse of their walls and cicatrization. Granting that this may occur, and no tubercle be left in the vicinity of the cavity (a state of things scarcely possible), we have in the lungs a condition similar to that of cicatrices from wounds in the limbs. Here it too often happens that these wounds are opened afresh if the patient falls into a low condition from excesses of any kind, or in consequence of debilitating illness.

Although the distinction between cure

and arrest of disease may seem to many a mere question of terms, I think it has a very important bearing, though an indirect one, on the disease itself. If our patients are duly impressed with the fact, that they are not *cured* of their disease, they and their friends will be less likely to commit such imprudences as render useless all the efforts of nature and art to remedy the mischief already done. Constant and vigilant care is required in all the cases where so-called cure has been obtained ; even the most sanguine practitioner must allow that here the predisposition to return of the disease is far greater than where there is an hereditary inclination to phthisis, or a marked scrofulous diathesis.

The possibility of arrest in any given case of phthisis seems to me to depend *less on the particular stage* which the disease has reached in the lungs, than on the extent of surface implicated, and on the general condition of the patient. The cases which

are likely to do best here are *those in which the disease has not gone beyond the first stage*, and where it is limited to a small portion of one or both lungs. But you well know how seldom patients apply to us thus early in the disease, and how very rarely such an apparently extreme measure as that of removal to a warm climate, which to so many, implies the breaking up of a home and the abandonment of bright prospects in life, can be enforced, where milder measures may perchance answer the purpose. A winter or two spent at Mentone would be of essential service to those who, it is feared, whether from family antecedents, rapid growth of body, or long, tedious illness, may become affected by the disease, and this applies more especially to the *adolescent*. Even if the disease has reached the second or third stage, provided it affects but a small portion of one lung, whilst the other lung is comparatively healthy, complete arrest can be effected; I have known

several such cases to occur. These, however, are but exceptions; in most cases arrest occurs to a certain extent—is, perhaps, complete in one lung—when disease, hitherto latent, becomes more manifest in the other, and, after running there a certain course, becomes arrested in its turn. Alternations of arrest and renewed activity in the disease are frequent. On the whole, however—in chronic cases especially—when the disease comes on comparatively late in life, and the constitution is still tolerably strong, we may look forward with confidence to a beneficial result; if the disease does not become arrested, its progress is at least slower than it would probably be had the patient remained in England.

I have great doubts as to the propriety of sending invalids here who are suffering from a more active form of the disease, even when this has not gone beyond the second stage, so long as they suffer much from night perspirations, diarrhœa, febrile

reaction towards evening, and their pulse keeps generally at a rapid rate. At present Mentone has been extending itself along the sea-shore, chiefly on account of the uncertainty as to the exact route the proposed railway will take; there are, in consequence, but very few houses sufficiently distant inland to be sheltered from the irritating effect of the sea-wind.

The journey from London to Mentone is a long and tedious one; despite the greatest care which may be taken, and frequent rest for a day or two in the principal towns, most cases of this kind will suffer greatly from fatigue; a feverish condition is apt to be induced; and as meals must unavoidably be hurried, irregular, and the food scarcely fit for invalids, diarrhoea is a very frequent consequence, and thereby the strength is further reduced.

Not only can I speak on this point from my personal experience of the journey, but, unfortunately, I have seen also in others

the proof of what I advance. One instance will suffice. A gentleman came under my care this winter, who, on his way through Paris, was examined by one of the first physicians of that city. The right lung was then found extensively diseased, but the left one pronounced comparatively sound. This patient travelled slowly and with every care, but on arriving here complained of having been greatly fatigued and having had frequent exacerbations of fever. When I came to examine him, about a fortnight after he left Paris, I found, as before, great disease in the right lung, and the left extensively implicated, the second stage, viz., that of softening, having set in. Great precaution must, therefore, be taken in the selection of cases ; one acute case I saw here was certainly not made worse by coming ; in fact, life was most likely somewhat prolonged, and all pain avoided, but the disease made gradual progress from day to day, and death at last supervened when

the patient's strength was utterly prostrated, and emaciation extreme.

This, however, is not the usual course of things, and I fully agree with other observers in believing that all acute cases, and all those in which the disease has reached the last stage, and in which a large portion of both lungs are implicated, ought not to be sent out here. In these cases the stimulating effect of the sea, and the excessive dryness of the air which at times prevails, are positively injurious; sleep becomes almost impossible, hectic sets in, and death quickly follows.

To these bad cases the comforts of home are almost necessary, and although from season to season great progress is made at Mentone in seeking to procure all that invalids may stand in need of, we are far from having everything we could wish, either in house accommodation or in food. Many of the cases which do not benefit from a sojourn here at present may possibly

do so later, if roads are carried through the gardens which are now full of orange and lemon trees, and buildings are erected at a quarter of a mile or so from the sea, which might easily be done.

Attacks of intercurrent pneumonia or pleurisy are liable to occur, as in England, from exposure to cold and want of care. They rarely, of themselves, induce a fatal issue ; but in all cases, by further lowering the waning strength of the invalid, they favour the more rapid progress of the original malady. I have never seen at Mentone the complications of ulcerative laryngitis or pneumothorax.

Hæmoptysis is also found to occur here, more especially during the prevalence of high winds, and when the atmosphere is very dry ; at other times also from over-exertion, or other imprudences committed by the invalid. I am not aware of any case being traceable to excessive heat of temperature. It is certainly an alarming

occurrence, but, except in the last stages of the disease, is seldom dangerous in itself. No climate that I know of will prove a safeguard against such an accident. Egypt has been supposed by some to ward it off, but during the winter 1859-60 I spent in that country I saw and heard of several cases of hæmoptysis, two of which ended fatally.

I feel convinced that most of the patients did not take proper precautions, and were themselves to blame for the unsuccessful issue of their winter's sojourn at Mentone.

LETTER V.

PRACTICAL EXPERIENCE OF THE CLIMATE
(continued).

MY DEAR DR. * * *

There are several other diseases which may be benefited, and even removed altogether, by a winter's residence at Mentone ; but, as you will see, this climate is by no means a panacea for all kinds of ailments.

Cases of scrofula will do well ; good food, fresh air, sunshine, and out-door exercise, the chief requisites in their treatment, are to be obtained here. Sea-bathing may generally be resorted to by such invalids as late as the end of November, and after the middle of March ; during the rest of the winter some sea-water should

be brought up to the house, and the body sponged with it within doors.

Children will be more especially benefited by a residence here. Scrofulous enlargement of glands are recovered from generally in a satisfactory manner. I have seen some very favorable cases of the kind ; the diminution of the swelling was slow certainly, but steadily continued, without any fresh morbid action being set up by colds.

Cases of chronic bronchitis are also favorably influenced ; the action of the skin is well kept up by the mild temperature and daily exercise, whilst the dryness of the air acts as a tonic to the diseased mucous membrane, especially in those cases where profuse expectoration occurs, as this is gradually lessened in quantity. As to asthma, it is almost impossible to tell beforehand what circumstances of climate will prove beneficial to any individual case. Most of the cases I have seen or heard of at Montone, derived no relief whatever from

residing here ; some have even experienced their attacks more frequently and in an aggravated form ; and yet the climate of Nice has proved undoubtedly efficacious, and even curative, to many invalids afflicted with asthma. The only way in which I can account for this is, that at Nice the patients may reside a mile and more from the sea, and it is in such situations that these cases have done well. At Mentone the unavoidable vicinity of the sea acts as a direct irritant, whilst a day spent on the hills often produces benefit for a few hours ; I have, therefore, every reason to anticipate that when well-planned houses shall have been erected at a sufficient distance from the shore, alleviation will follow to this class of patients also, and the good qualities of this winter climate more fully manifested.

I am convinced it would be a wise and useful measure to send patients here who, having just recovered from an acute attack of pneumonia or pleurisy, are exposed to a

relapse during the cold, damp winters of England, or must, at all events, have a tardy convalescence, and put up with long and tedious confinement to the house. The practicability of being out almost every day, taking exercise in the sunshine and dry air, at Mentone, will do much towards removing the delicacy of organism induced by the malady; this will hold good more especially with children and young persons. I have seen, and had under my care, instances of this kind, the result of which has been most satisfactory.

The general features of the climate are such as eminently to suit Europeans who have had their constitutions injured by long residence in the East Indies, and cannot bear the trying winters of their native land; to such, the rather bracing nature of the climate gives a fresh tone to the system. The only objection I find here is that, after prevalence of high easterly winds, I have observed a slight return of ague in those

individuals who had already suffered from this disease. Children who are sent over from India, to prevent the precocious development of body universal in so hot a clime, generally suffer much from the sudden transition to the cold, damp winters of England. To such it would be a great advantage to spend one or two winters in the more genial climate of Mentone. At present there certainly are few resources for education, but undoubtedly the supply would here, as elsewhere, speedily follow the demand; I think, moreover, that bodily health should in all cases be the first consideration.

Chronic rheumatism and gout are much benefited by a residence here, as there is less risk than in most places of sudden and great variations of temperature. The attacks which do occasionally occur are generally slight and of short duration.

Persons liable in England to attacks of chronic diarrhæa do very well, as I have had

occasion to notice. This fact is chiefly due to the astringent effects of the hard water.

Certain forms of heart affection, more especially those without valvular changes, may derive benefit here, as the sufferers are enabled to be out of doors and take moderate exercise almost every day; for the same reasons, cases of paralysis of some standing would do well at Mentone, if they could only bear the long journey thither; but the great power of the sun might prove injurious to those who are liable to apoplexy.

It often occurs that neuralgia, more especially when it affects the head and face, is not alleviated at Mentone; in some cases the sufferings seem rather increased than otherwise whenever the weather becomes unsettled, during heavy rains and windy periods. The sea-coast of the Mediterranean generally is said to present this peculiar feature of climate; in some parts of that coast neuralgia is even said to attack persons who were not subject to it elsewhere. Fortunately this is not the case here. Some

persons actually have obtained relief from this affection at Mentone. This I consider to be due to the favorable position of their habitation. One lady I knew of suffered agony in a house close to the shore, and lost all pain during the remainder of her stay by removing to a villa some short distance from the sea, and further up the hill.

I would strongly recommend to all those persons who have found by experience that they do not feel well by the sea-side not to come to Mentone as, under the present circumstances of the town, they cannot find a house inland. To highly nervous and excitable persons this equally applies, as they find it almost impossible to obtain sound sleep. The waves themselves are not often very noisy, and patients soon get accustomed to their sound ; but in the immediate proximity of the sea there seems to be a source of irritation to nervous constitutions. Hysteria is, therefore, not an unfrequent complication here in the course of other diseases.

LETTER VI.

HINTS TO INVALIDS.

MY DEAR DR. * * *

I will conclude with a few hints which may prove useful to invalids about to winter here.

The journey to Mentone will, I am happy to say, be much facilitated next year, as the railway is finished, and has just been opened as far as Vence-Cagnes, a small village on the right bank of the Var, at a distance of thirteen kilomètres, or about seven and a half English miles from Nice. At Cagnes will be found omnibuses and cabs to convey the traveller to Nice, a few miles further, at fixed charges, according to the custom in France. Thus the greater part of the journey will be performed by railway, one

of the most comfortable and expeditious modes of travelling. I am, moreover, assured that the bridge across the Var is almost finished, and that the railway will convey passengers direct to Nice in the course of next November. The places usually selected for resting at night are Paris, Lyons, Toulon, and Nice; but this necessitates travelling for ten or twelve hours a day, which is more than many invalids can bear. Before reaching Paris excellent accommodation may be had at Folkstone, Dover, Boulogne, and Calais; at Amiens, also, I have been told there were good hotels. Between Paris and Lyons I have stopped both at Dijon and Macon, and in either case found very comfortable quarters. Below Lyons there are, before reaching Toulon, no tolerably good hotels, except at Avignon and Marseilles, and at the former place high and piercing winds often prevail. Further on, Cannes is an excellent resting-place.

There are on the railway from Paris to the Mediterranean only two express trains in the twenty-four hours ; this entails much inconvenience to invalids, as they must arrive late at night in some towns, and start again very early in the morning. The ordinary, or *omnibus* trains, on the other hand, proceed at so slow a pace that travelling by them becomes extremely tedious. Great delay often occurs, on arriving at a station, before the luggage can be obtained, and during that time the invalids are exposed to cold and fatigue, as there are scarcely any seats in the waiting-rooms. To obviate this, the best plan is to write beforehand to the hotel where one intends to stop, so as to engage rooms and order a *commissionaire* to come with a carriage to await the arrival of the train. The invalid will thus be able to drive off at once to the hotel, whilst the *commissionaire* will claim the luggage and see it safely conveyed to the house. The heavier articles of luggage should be left at the

booking-office of the stations, where they are registered and warehoused for a few pence.

From Nice to Mentone, a distance of thirty-two kilomètres, or about twenty English miles, the journey can be accomplished by omnibus, or, better still, by carriage, the price of one with a pair of horses, being about thirty francs. The time occupied is from three to four hours; the road crosses the barren and exposed mountain-pass of Turbia, nearly two thousand English feet above the level of the sea; consequently some degree of cold must be expected there whenever the wind is high, or the season advanced. A more sheltered road is being constructed, at a lesser elevation; it is to pass through Villafranca and Monaco. I am told the journey by that route will not occupy more than two and a half hours.

It is intended to carry the railway along the Riviera as far as Genoa; but this will necessitate such stupendous engineering

works, that some years must yet elapse before a train in that direction can reach even to Mentone.

A sea-journey has attractions for many, and may prove very convenient in saving fatigue, more especially where young children are concerned. I can, from personal experience, recommend the steamers which run from Liverpool to Genoa, and belong to Messrs. Burns and MacIver, of the Cunard Company. We found the *Marathon* a comfortable and excellent sea-going vessel; the voyage, including a few hours' stay at Gibraltar, occupied ten days. Another line of steamers runs from Genoa to Nice, the passage requiring about ten to twelve hours. Carriages may also be obtained to drive from Genoa along the Cornice Road; in that way Mentone can be reached in about three days; the principal places for halting on the way being Savona, Oneglia, and San Remo.

There are also trading steamers, which

ply between London and Marseilles or London and Genoa, and have accommodation for a limited number of passengers, but I do not know whether they would be really comfortable for an invalid.

A most important matter is to leave England sufficiently early to avoid the beginning of cold weather. I do not think it would be prudent to start for the south later than the first week in October, as occasionally stormy weather sets in during that month. I remember I myself experienced a heavy snowstorm at Cowes and Southampton in October, 1859.

It is best also to travel leisurely, and to rest frequently for a day or two, so that the invalid may spare his strength as much as possible. This slower travelling can be managed with especial advantage towards the end of the journey, when the temperature is yet genial, and where good hotels, with every comfort, can be found at Toulon, Cannes, and Nice. The end of October,

or the first week in November, is the latest period at which an invalid ought to reach Mentone, as after that time cold weather may be experienced in traversing Provence and the mountainous region to the east of Toulon. The last two seasons we arrived at Mentone in the middle of September, and no member of our party suffered from the heat; indeed, we found the weather delightful. I would not, however, advise every one to come thus early, as some persons cannot bear a high temperature without discomfort. I have seen several instances where diarrhœa was evidently brought on by the combined effect of heat and fatigue, and persons in health are apt to suffer thus quite as much as invalids. No one, however, will be much inconvenienced after the middle of October. I consider it a very important point, that invalids should have arrived and be comfortably settled in their winter home before the heavy rains of November set in, as these

generally produce a sensible falling in the temperature.

Now as to the proper time for leaving Mentone. I may observe that it is impossible to foretell precisely what a season will prove to be ; but the heat seldom becomes excessive here before the middle of May ; a few days may appear hot, but after rain cooler weather returns, and May is generally showery, containing, on the average, almost as many rainy days as November. I would not recommend any one who can bear the fatigue of a journey to remain later than the middle of June, although some persons affected with chest disease in an advanced stage have resided here all through the summer, and even improved during that time.

Although the heat is not excessive, the glass having, on one occasion only in a period of ten years, indicated a temperature of 90° Fahr., the nights, it should be borne in mind, are almost as warm as the days.

and many persons might be injured by such continuous heat.

A complete change of climatic conditions is, moreover, highly beneficial, not only to invalids, but to persons in good health. Many places may be found which will be suitable for a summer residence. Most persons will naturally be anxious to return home, and their inclination may safely be indulged, as the English climate, in a moderately fine summer, is in well-chosen spots the most bracing of any, and offers the further advantage of a complete change of diet. If a visit to England be resolved upon, invalids ought not to arrive there before the month of June, and should loiter on their way through France or Switzerland and the Rhine. Many excellent places of residence during the summer months are to be found in the German watering-places, the Pyrenees, Switzerland, the Tyrol, and on the shores of the Lake of Como. Some, however, may object to

the fatigue and expense inseparable from a long journey ; these may locate themselves in places nearer Mentone, as on the slopes of the Col de Tende, such as Saint Dalmas, the Chartreuse of Pesio, and others. These spots, however, are as yet but little known to the English community. I purpose during the next summer visiting these localities, as they might, if suitable in a sanitary point, be convenient for those who intend spending a second winter in the south of Europe.

Mentone is, unfortunately, so far distant from England that the journey thither proves very costly, the mere travelling fare by first-class carriages being about eight pounds a head. Moreover, provisions of all kinds are at present quite as dear as in London ; and though house rents are lower in most instances, they are being raised from season to season ; hence Mentone is scarcely a place for persons of very limited means. This, however, may be

changed when the road hence to Sospello is finished, as this will give us a direct communication with Turin, and easy access to food of all kinds, which can then be brought in greater abundance. Houses are constantly being built, as the landlords are now getting a large interest for their money ; thus, ultimately, the rents must be lowered again to a reasonable rate.

Winter clothing.—It is highly necessary to be provided with warm winter clothing and flannels, for the weather may be cold during the journey, and some amount of winter is always experienced at Montone.

Books.—A few choice books will also be found exceedingly useful, the circulating libraries in the town containing principally novels.

Choice of a house.—The choice of a good house for the winter season is highly

important. The invalids should, if possible, locate themselves on one of the bays outside the town, as the streets are very apt to be draughty on windy days and very noisy during the nights. After having spent one winter on the eastern bay, we have removed this season to the western, and, for many reasons, are greatly satisfied with the change. The eastern bay I should observe has, however, been much extolled in preference to the western. As I might appear to you prejudiced in my opinion, I will quote Dr. Bottini, who, living in the town, and having been in practice here for twenty years, may on this point be considered as an unprejudiced and reliable authority. He says that the eastern bay is a little the warmer of the two, whereas the western is damper, this being chiefly owing to the greater amount of dew falling on that side; this meteorological phenomenon occurs, however, at Mentone in a moderate degree only. He adds, that “patients suf-

fering from phthisis, with excitement of the nervous and vascular systems, will do best in the western bay, and scrofulous persons in the eastern." For my own part, I consider the question of selection between the two bays should be subordinate to others. The most important point is to decide upon a roomy, well-built house, situate as far as possible from the sea and from the dusty high road. A few houses have, unfortunately, been built in damp and in otherwise unfavorable situations; these must be carefully shunned, as also all very recently erected dwellings. It is a mistake for invalids to occupy sleeping apartments on the ground floor, unless good cellars be constructed beneath; there are several houses with this defect, and they are apt to entice the unwary by the apparent advantage of having no staircase to ascend. It is also a matter of urgent necessity that all invalids should occupy and confine themselves exclusively to rooms having a south

aspect, as these are always warm and cheerful whenever the sun shines, whereas north rooms are several degrees colder, and ehills may be experienced from ineautiously leaving a southern for a northern room.

Houses and apartments.—Houses and apartments can easily be engaged by applying to one of the house-agents at Mentone, Mr. Willoughby, Mr. E. Turner, or Mr. Roggieri; it will be better however, not to hire any habitation without having previously seen it personally or through friends. Houses are let ready furnished, with plate and linen, at so much for the season (a term of six months). I would advise every one to have a proviso inserted in their lease, to enable them, if neecessary, to stay in the house beyond the six months, by paying a fixed monthly sum. I am told that it is now neecessary to have it stated in the lease of all furnished dwellings that all the taxes shall be paid by the landlord.

Servants.—Tolerably efficient servants can easily be procured by applying to the house-agents.

Boarding-houses.—There are several *pensions*, or boarding-houses, where very good accommodation can be obtained at fixed daily charges, from eight francs and upwards for each person, according to their requirements. These boarding establishments, however, are not very convenient where there are young children in a family, as it is difficult to have their diet properly attended to.

Arrangements can also be made for the season, or by the week, at the principal hotels in the town.

The English Church.—A small English church was erected last year in the eastern bay, close to the sea, at a cost of about one thousand pounds, the land having been presented by an English lady resident at

Mentone. This church was consecrated by the late Bishop of Gibraltar on Christmas Eve, 1862; it is still, unfortunately, in debt, contracted through the building expenses. It is capable of accommodating 320 persons, and, if required, galleries could easily be constructed to hold 50 more. The chaplain, the Rev. D. F. Morgan, is always willing and ready to befriend the visitors.

Bankers.—Three of the principal merchants of Mentone, Mr. N. Viale, of the firm of L^s. Biovis et C^{ie}, Mr. Faraldo, and Mr. François Palmaro, have lately put themselves in correspondence with most of the London bankers, and are ready to change cheques and accept letters of credit.

Chemists, &c.—There are also two good chemists, Mr. Gras and Mr. Albertotti, both of whom procure their principal drugs and the best cod-liver oil direct from England.

At the Mentone Bazaar, held by Mr. Pascal Amarante (a most obliging man, who speaks English well), almost every fancy and useful article can be found.

Supplies of all kinds are now obtainable, though often at a high rate. Mr. Willoughby, the English grocer, has in his shop almost all the provisions which invalids may have been in the habit of consuming when at home, such as prepared cocoa, calves'-feet jelly, and tins of preserved meats.

Early rising.—Contrary to the custom in England, I would recommend the invalid, while here, to rise early, so as to have breakfasted and be ready to go out by half-past nine or ten. My reason for this advice is to secure a certain amount of exercise and fresh air before the wind gets up, as it often does about eleven o'clock. In order to obtain a sufficient amount of rest, the patients will then retire early,

which is a great advantage, as artificial light, besides being trying to the eyesight, generally vitiates, to some extent, the atmosphere of a room.

Outdoor exercise.—Walking exercise, especially on a level surface, I hold to be highly beneficial, so long as it is not carried to excess; thus, however tempting the view from the heights may be, all chest invalids ought to avoid exerting themselves much by climbing. As the presence of the sun is the chief source of warmth, there is, of necessity, a great difference in temperature between places in the shade or exposed to the sunshine; such sudden transitions are very dangerous, and must be avoided as much as possible, or provided against by means of light overcoats or shawls. The invalids ought almost to live out of doors whenever the weather allows of it; with a camp-stool, wrappers, and a lined white umbrella, they can, without

fatigue, enjoy the fresh air in some of the many beautiful spots around. The olive groves are especially attractive ; others prefer sitting on the beach, but this is unadvisable for all at least, who suffer from febrile attacks, or whose nervous system is peculiarly excitable ; the breeze off the sea has occasionally proved irritating.

Whenever the sea is sufficiently calm and the weather warm, boating will be of great service, invalids generally feeling refreshed and invigorated afterwards ; they must sit or lie at their ease in the bows, whilst the boatmen ply the oars. Sea-voyages have long been acknowledged as useful in many cases of pulmonary consumption, in great measure from the gentle exercise without fatigue ; here this can to a great extent be obtained, whilst there is but little risk of sea-sickness being induced.

There is at Mentone but little scope for carriage exercise ; moreover, the amount of dust which frequently prevails on the

three only practicable roads may prove highly injurious to invalids.

Donkeys can easily be obtained ; and if invalids can bear the shaking motion without too much fatigue, short rides may be safely indulged in. But all lengthy excursions must be avoided until strength has returned to a great extent ; the mountain paths winding round the hills must, of necessity, be shaded in places by the heights above, or by walls and trees, and here sudden transitions of temperature will be experienced. When the genial spring brings fresh life to the human as well as to the vegetable system, when the days are longer, there will be less risk in these expeditions, though they must always be entered into with great care.

Evening amusements.—Invalids who come to Mentone for the winter must make up their minds to a life of quiet seclusion, if they wish to derive as much benefit as possible from their stay. All evening visiting

must be declined ; in fact, all delicate persons ought to be indoors before sunset, and not venture out again.

Last year, the persons who came to Mentone, merely to accompany sick friends or relatives, complained bitterly of the extreme dulness of the place. Great efforts have been made this year to remove this cause of complaint. There is now open throughout the season a small theatre, where performances take place two or three times a week. Moreover, there are subscription balls held in the rooms of the *Cercle* twice a week, between Christmas and Lent. Concerts also in the same rooms take place occasionally in the afternoon, and friendly *Conversazioni* are given weekly or fortnightly by many of the principal visitors. All these may, to persons in good health, prove pleasant diversions in a somewhat monotonous mode of life. But invalids must on no account yield to any of these temptations, as the rooms must be hot and ill-ventilated ; moreover,

in coming out of them, great risk is incurred of catching cold.

All these precautions may seem to many irksome and unnecessary, but my experience fully confirms the statement of Sir James Clark, that “ Every invalid who goes abroad must make up his mind to submit to many sacrifices of his inclinations and pleasures, if he expects to improve his health by such a measure.”

APPENDIX.

I.

METEOROLOGICAL OBSERVATIONS,

Made by M. JEROME DE MONLEON.

From 1818 to 1844 inclusively, with Reaumur's thermometer.

<i>Date.</i>		<i>Greatest cold.</i>		<i>Greatest heat.</i>
1818	...	+2·3	...	25·0
1819	...	+1·4	...	22·0
1820	...	—3·0	...	24·6
1821	...	+4·0	...	24·0
1822	...	+6·0	...	23·0
1823	...	+1·5	...	22·8
1824	...	+3·2	...	23·6
1825	...	+2·6	...	23·5
1826	...	+1·5	...	23·6
1827	...	0·0	...	24·5

<i>Date.</i>		<i>Greatest cold.</i>		<i>Greatest heat.</i>
1828	...	+ 3·4	...	25·0
1829	...	+ 1·0	...	22·0
1830	...	0·0	...	24·0
1831	...	+ 2·4	...	23·6
1832	...	+ 2·6	...	24·8
1833	...	+ 2·5	...	22·0
1834	...	+ 3·4	...	24·1
1835	...	+ 3·0	...	23·7
1836	...	0·3	...	23·6
1837	...	0·8	...	23·2
1838	...	— 1·0	...	23·5
1839	...	+ 1·0	...	24·3
1840	...	+ 1·5	...	25·1
1841	...	+ 1·0	...	22·0
1842	...	— 1·7	...	23·7
1843	...	+ 1·2	...	24·4
1844	...	0·1	...	22·6

SYNOPSIS of the Meteorological Observations of M. de Brea made at Mentone, from the 1st January, 1851, to the 31st December, 1860.

Mean monthly temperature (centigrade thermometre) from observations made at 6 a.m., 2 p.m., and 10 p.m., daily.

Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual mean.
1851	10·6	10·0	11·6	16·6	17·0	23·1	24·1	25·1	21·2	17·6	9·5	9·2	16·3
1852	10·0	9·5	10·5	12·1	19·1	21·8	25·2	23·5	20·6	18·0	15·3	12·5	16·5
1853	11·7	7·6	10·2	15·1	17·7	21·5	25·5	25·5	21·5	17·6	13·8	10·2	16·5
1854	11·5	10·2	13·8	15·6	20·7	22·7	25·6	25·5	21·8	18·7	12·3	11·5	17·5
1855	8·0	10·9	12·5	16·7	18·4	21·5	24·0	25·2	20·8	17·7	12·3	8·0	16·3
1856	10·5	10·5	11·8	13·8	15·8	20·5	23·6	24·0	19·0	17·4	10·8	9·3	15·8
1857	7·3	9·2	12·0	13·5	17·0	21·4	23·6	23·5	21·2	17·7	12·1	10·1	15·8
1858	6·9	9·7	10·9	15·3	16·9	23·1	22·1	22·2	20·9	17·6	11·0	9·0	15·3
1859	7·5	9·5	12·5	14·3	17·5	20·4	25·5	25·2	21·4	17·3	13·4	7·6	16·0
1860	9·4	7·8	10·5	13·5	17·9	20·5	26·6	22·0	20·3	17·4	11·5	8·5	15·1
10	9·3	9·5	11·6	14·6	Mean of the ten years. 17·8	of the ten years. 21·6	24·1	24·1	20·8	17·9	12·2	9·5	16·1

BRIGHT SUNSHINE.

Number of days when the sun shone in a cloudless sky.

Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
1851	19	17	18	15	17	28	25	27	17	16	17	26	242
1852	21	25	23	18	19	17	23	24	18	15	12	19	234
1853	15	13	12	17	6	14	24	22	19	14	13	13	182
1854	14	20	20	14	8	12	21	24	19	15	13	20	200
1855	14	8	11	16	17	16	17	23	17	14	11	21	185
1856	11	14	11	13	11	20	22	20	12	19	21	18	192
1857	21	18	17	14	20	21	27	22	20	17	23	26	246
1858	25	10	22	19	21	23	23	22	21	19	15	24	244
1859	22	19	24	15	17	15	24	22	15	11	18	15	217
1860	11	19	19	12	18	12	22	23	17	21	11	13	198
10	173	163	177	153	154	178	222	220	175	181	151	107	2140

When the sun shone brightly during part of the day.

APPENDIX.

89

Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
1851	1	5	4	3	2	0	0	1	5	4	4	2	31
1852	1	0	0	0	1	2	1	1	2	4	7	2	21
1853	5	5	4	8	4	4	2	2	5	8	4	7	58
1854	5	4	4	10	5	2	7	5	7	7	4	4	64
1855	4	3	5	5	7	5	10	3	4	0	4	2	52
1856	3	5	6	3	6	2	6	7	3	5	6	7	59
1857	4	2	5	2	5	2	1	1	2	6	2	2	34
1858	2	6	2	5	3	2	2	3	1	4	3	3	35
1859	2	1	2	7	4	4	6	3	11	5	6	3	54
1860	7	1	9	3	2	9	4	5	0	3	1	5	49
10	34	32	41	46	39	32	39	31	40	46	41	37	457

CLOUDY.

Days when the sun was entirely obscured.

Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
1851	2	1	1	6	2	0	2	0	1	2	0	1	18
1852	4	1	4	5	6	8	2	2	1	1	1	2	37
1853	4	3	2	2	1	7	4	2	1	3	0	4	33
1854	2	4	6	3	8	5	1	1	2	1	2	1	36
1855	4	2	2	1	2	0	2	1	1	1	2	5	23
1856	5	6	7	2	4	1	1	1	1	0	0	0	28
1857	0	2	5	1	0	0	0	1	0	0	0	1	10
1858	0	6	1	0	0	2	1	1	1	0	3	0	15
1859	0	2	3	4	0	1	0	1	1	1	1	3	17
1860	3	6	0	4	1	4	2	1	1	4	3	2	31
10	34	22	21	22	24	22	15	11	10	12	12	10	242

Including all those on which any rain fell, whether little or much.

APPENDIX.

91

Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
1851	9	5	8	6	10	2	4	3	7	9	9	2	74
1852	5	3	4	7	5	3	5	4	9	11	10	8	74
1853	7	7	13	3	20	5	1	5	5	6	13	7	92
1854	10	0	1	3	10	11	2	1	2	8	11	6	65
1855	9	15	13	8	5	9	2	4	8	16	13	3	105
1856	12	4	7	12	10	7	2	3	14	7	3	6	87
1857	6	6	4	13	6	7	3	7	8	8	5	2	75
1858	4	6	6	6	7	3	5	5	7	8	10	4	71
1859	7	6	2	4	10	10	1	5	3	14	5	10	77
1860	10	3	3	11	10	5	3	2	12	3	15	11	88
10	79	55	61	73	93	62	28	39	75	90	94	59	808

SUMMARY

Of the state of the weather during the ten years

Number of days when the sun shone in a cloudless sky	2140
Number of days when the sky was partly, or for some hours, obscured by clouds	457
Number of cloudy days	248
Number of rainy days	808
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	3653
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III.

METEOROLOGICAL OBSERVATIONS,

NOTED BY MYSELF, DURING THE WINTER 1861-62.

THE thermometer (Fahr.) used was constructed by HILSCHER, of New Bond Street. It was placed outside the north window of a house situated some little distance above the level of the sea, near the mountain side, in the eastern bay. The minima temperatures are, consequently, rather higher than those of other observers residing nearer to the sea, and almost on a level with it.

Date.	Minimum.	Maximum.	Daily range.	Observations.
1861				
pt. 25	65°	74°	9°	Rain. Clouds and sunshine.
, 26	65°	74°	9°	Rain. Clouds and sunshine.
, 27	61°	71°	10°	Cloudy.
, 28	61°	72°	11°	Bright sunshine.
, 29	63°	72°	9°	Bright sunshine.
, 30	65°	73°	8°	Bright sunshine.
st. 1	64°	72°	8°	Bright sunshine.
, 2	65°	74°	9°	Bright sunshine.
, 3	65°	73°	8°	Bright sunshine.
, 4	66°	74°	8°	Bright sunshine.
, 5	68°	75°	7°	Bright sunshine.

Date.	Mini- mum.	Maxi- mum.	Daily range.	Observations.
1861				
Oct. 6	67°	74°	7°	Bright sunshine.
„ 7	65°	74°	9°	Bright sunshine.
„ 8	66°	74°	8°	Clouds and sunshine.
„ 9	68°	74°	6°	Bright sunshine.
„ 10	67°	76°	9°	Bright sunshine.
„ 11	66°	75°	9°	Sunshine and clouds.
„ 12	61°	70°	9°	Bright sunshine.
„ 13	63°	72°	9°	Bright sunshine.
„ 14	63°	71°	8°	Bright sunshine.
„ 15	63°	72°	9°	Bright sunshine.
„ 16	62°	70°	8°	Bright sunshine.
„ 17	60°	69°	9°	Bright sunshine.
„ 18	60°	69°	9°	Bright sunshine.
„ 19	59°	69°	10°	Bright sunshine.
„ 20	61°	64°	3°	Cloudy. Rain.
„ 21	62°	69°	7°	Clouds and sunshine.
„ 22	62°	70°	8°	Cloudy. Rain.
„ 23	58°	70°	12°	Clouds and sunshine.
„ 24	61°	65°	4°	Cloudy. Rain.
„ 25	56°	65°	9°	Bright sunshine.
„ 26	56°	66°	10°	Bright sunshine.
„ 27	55°·5	64°	8°·5	Bright sunshine.
„ 28	54°·5	64°	9°·5	Sunshine and clouds.
„ 29	55°	60°	5°	Rain all day.
„ 30	56°	66°	10°	Cloudy. Rain.
„ 31	54°	61°	7°	Clouds and sunshine.
Nov. 1	51°	59°	8°	Bright sunshine.
„ 2	54°	60°	6°	Clouds and sunshine.
„ 3	50°	58°·5	8°·5	Clouds and sunshine.
„ 4	49°	57°	8°	Rain. Clouds and suns

Date.	Mini- mum.	Maxi- mum.	Daily range.	Observations.
1861				
Nov. 5	49°	57°	8°	Bright sunshine.
" 6	51°	62°	11°	Rain. Cloudy.
" 7	55°	62°	7°	Rain. Cloudy.
" 8	55°	66°	11°	Clouds and sunshine. Rain.
" 9	59°	65°	6°	Rain all day.
" 10	54°	63°	9°	Clouds and sunshine. Rain.
" 11	51°	60°	9°	Clouds and sunshine.
" 12	53°	58°	5°	Rain all day.
" 22*	52°	63°	11°	Clouds and sunshine.
" 23	54°	60°	6°	Bright sunshine.
" 24	55°	63°	8°	Bright sunshine.
" 25	52°	59°	7°	Bright sunshine.
" 26	51°	59°	8°	Clouds and sunshine.
" 27	52°	57°	5°	Bright sunshine.
" 28	51°	58°	7°	Bright sunshine.
" 29	51°	57°	6°	Bright sunshine.
" 30	52°	57°	5°	Bright sunshine.
Dec. 1	50°·5	57°	6°·5	Bright sunshine.
" 2	50°	56°	6°	Bright sunshine.
" 3	51°	55°	4°	Bright sunshine.
" 4	48°	55°	7°	Cloudy.
" 5	47°	54°	7°	Cloudy. Rain.
" 6	45°	53°	8°	Cloudy.
" 7	46°	54°	8°	Clouds and sunshine.
" 8	47°	56°	9°	Clouds and sunshine.
" 9	51°	59°	8°	Clouds and sunshine.
" 10	51°	58°	7°	Bright sunshine.
" 11	51°	57°	6°	Bright sunshine.
" 12	51°	60°	9°	Clouds and sunshine.

* No observations taken for nine days.

Date.	Mini- mum.	Maxi- mum.	Daily range.	Observations.
1861				
Dec. 13	50°	58°	8°	Cloudy. Rain.
„ 14	52°	60°	8°	Rain. Clouds and sunshi
„ 15	51°	58°	7°	Bright sunshine.
„ 16	49°	56°	7°	Clouds and sunshine.
„ 17	50°	58°	8°	Clouds and sunshine.
„ 18	49°	58°	9°	Clouds and sunshine.
„ 19	48°	57°	9°	Bright sunshine.
„ 20	46°	55°	9°	Bright sunshine.
„ 21	47°	56°	9°	Clouds and sunshine.
„ 22	47°	56°	9°	Clouds and sunshine.
„ 23	46°	54°	8°	Bright sunshine.
„ 24	46°	53°	7°	Bright sunshine.
„ 25	40°	49°	9°	Bright sunshine.
„ 26	42°	51°	9°	Bright sunshine.
„ 27	42°	52°	10°	Clouds and sunshine. Ra
„ 28	46°	55°	9°	Cloudy.
„ 29	48°	55°	7°	Bright sunshine.
„ 30	47°	54°	7°	Bright sunshine.
„ 31	47°	53°	6°	Bright sunshine.
1862.				
Jan. 1	44°	53°	9°	Bright sunshine.
„ 2	45°	52°	7°	Bright sunshine.
„ 3	46°	53°	7°	Cloudy. Rain.
„ 4	46°	55°	9°	Clouds and sunshine. Ra
„ 5	44°	54°	10°	Clouds and sunshine.
„ 6	44°	52°	8°	Bright sunshine.
„ 7	44°	50°	6°	Clouds and sunshine.
„ 8	45°	50°	5°	Clouds and sunshine.
„ 9	45°	52°	7°	Clouds and sunshine.
„ 10	47°	54°	7°	Clouds and sunshine.

Date.	Mini- mum.	Maxi- mum.	Daily range.	Observations.
1862.				
an. 11	49°	57°·5	8°·5	Cloudy.
" 12	49°	56°	7°	Bright sunshine.
" 13	47°	57°	10°	Clouds and sunshine. Rain.
" 14	45°	52°	7°	Clouds and sunshine. Rain.
" 15	43°	51°	8°	Clouds and sunshine.
" 16	43°	51°	8°	Bright sunshine.
" 17	42°	49°·5	7°·5	Clouds and sunshine. Rain.
" 18	38°	46°	8°	Rain. Snow.
" 19	32°	44°	12°	Snow on ground. Clouds and rain.
" 20	38°	43°	5°	Rain. Cloudy.
" 21	38°	47°	9°	Rain. Cloudy.
" 22	39°	48°	9°	Rain. Cloudy.
" 23	45°	55°	10°	Clouds and sunshine.
" 24	48°	55°	7°	Cloudy.
" 25	50°	56°	6°	Rain. Cloudy.
" 26	51°	58°	7°	Clouds and sunshine.
" 27	47°	58°	11°	Bright sunshine.
" 28	47°	59°	12°	Bright sunshine.
" 29	47°	54°	7°	Bright sunshine.
" 30	47°	55°	8°	Clouds and sunshine.
" 31	48°	56°	8°	Clouds and sunshine.
b. 1	50°	60°	10°	Cloudy.
" 2	51°	59°	8°	Bright sunshine.
" 3	50°	57°	7°	Cloudy.
" 4	49°	57°	8°	Bright sunshine.
" 5	51°	59°	8°	Cloudy.
" 6	52°	59°	7°	Clouds and sunshine.
" 7	50°	59°	9°	Clouds and sunshine. Rain.
" 8	40°	48°	8°	Cloudy. Rain.

Date.	Mini- mum.	Maxi- mum.	Daily range.	Observations.
1862.				
Feb. 9	37°	45°	8°	Clouds and sunshine.
„ 10	37°	44°	7°	Clouds and sunshine.
„ 11	34°·5	45°	10°·5	Clouds and sunshine.
„ 12	38°	48°	10°	Bright sunshine.
„ 13	41°	49°·5	8°·5	Bright sunshine.
„ 14	42°	51°·5	9°·5	Bright sunshine.
„ 15	43°	52°	9°	Bright sunshine.
„ 16	45°	58°	13°	Clouds and sunshine. E
„ 17	45°	56°	11°	Cloudy. Rain.
„ 18	47°	53°	6°	Rain all day.
„ 19	50°	59°·5	9°·5	Cloudy.
„ 20	50°	60°	10°	Rain. Clouds and sunsh
„ 21	52°·5	62°	9°·5	Rain. Clouds and sunsh
„ 22	50°	60°	10°	Cloudy.
„ 23	51°	60°	9°	Bright sunshine.
„ 24	50°	57°·5	7°·5	Bright sunshine.
„ 25	51°	62°	11°	Rain. Clouds and sunsh
„ 26	48°·5	60°	11°·5	Clouds and sunshine.
„ 27	50°	57°	7°	Clouds and sunshine.
„ 28	49°	60°	11°	Clouds and sunshine.
Mar. 1	48°	57°	9°	Rain. Cloudy.
„ 2	44°	52°	8°	Rain. Cloudy.
„ 3	46°	52°	6°	Rain. Cloudy.
„ 4	49°	61°·5	12°·5	Clouds and sunshine.
„ 5	45°	55°·5	10°·5	Bright sunshine.
„ 6	45°	53°	8°	Bright sunshine.
„ 7	45°·5	57°	11°·5	Clouds and sunshine.
„ 8	49°	62°·5	13°·5	Clouds and sunshine.
„ 9	50°	63°	13°	Clouds and sunshine.
„ 10	51°	63°	12°	Clouds and sunshine.

Date.	Mini- mum.	Maxi- mum.	Daily range.	Observations.
1862.				
Jan. 11	51°	61°	10°	Bright sunshine.
" 12	53°	62°	9°	Clouds and sunshine.
" 13	49°	62°	13°	Rain. Cloudy.
" 14	56°	63°	7°	Clouds and sunshine.
" 15	54°	66°	12°	Cloudy.
" 16	55°·5	65°	9°·5	Clouds and sunshine. Rain.
" 17	51°·5	61°	9°·5	Bright sunshine.
" 18	51°	63°·5	12°·5	Cloudy. Rain.
" 19	51°	60°·5	9°·5	Rain. Cloudy.
" 20	51°	62°	11°	Cloudy. Rain.
" 21	52°	59°	7°	Cloudy. Rain.
" 22	49°·5	59°	9°·5	Bright sunshine.
" 23	52°	60°	8°	Bright sunshine.
" 24	50°	62°	12°	Bright sunshine.
" 25	51°·5	63°	11°·5	Clouds and sunshine.
" 26	53°	64°	11°	Clouds and sunshine.
" 27	60°	70°·5	10°·5	Cloudy. Rain. Levanter wind.
" 28	52°	58°	6°	Rain. Cloudy.
" 29	52°	61°	9°	Rain. Clouds and sunshine.
" 30	49°·5	61°	11°·5	Bright sunshine.
" 31	51°	60°	9°	Rain. Clouds and sunshine.
April 1	51°·5	58°	6°·5	Rain. Cloudy.
" 2	52°	65°	13°	Rain. Clouds and sunshine.
" 3	56°	70°	14°	Cloudy. Rain.
" 4	56°·5	70°	13°·5	Clouds and sunshine.
" 5	56°·5	72°	15°·5	Clouds and sunshine.
" 6	56°	67°	11°	Bright sunshine.
" 7	56°	71°·5	15°·5	Bright sunshine.
" 8	58°·5	72°	13°·5	Clouds and sunshine. Rain.
" 9	59°	70°	11°	Clouds and sunshine. Rain.

Date.	Mini- mum.	Maxi- mum.	Daily range.	Observations.
1862.				
April 10	59°	71°	12°	Clouds and sunshine.
„ 11	59°	70°	11°	Clouds and sunshine.
„ 12	56°	67°	11°	Clouds and sunshine.
„ 13	57°·5	70°	12°·5	Clouds and sunshine.
„ 14	53°	62°	9°	Rain. Clouds and sunsh
„ 15	47°	62°	15°	Clouds and sunshine. I
„ 16	48°	62°	14°	Bright sunshine.
„ 17	49°	64°·5	15°·5	Clouds and sunshine.
„ 18	51°	67°	16°	Clouds and sunshine.
„ 19	51°·5	66°	14°·5	Bright sunshine.
„ 20	53°	66°	13°	Bright sunshine.
„ 21	55°	68°	13°	Cloudy.
„ 22	58°	69°	11°	Cloudy.
„ 23	58°·5	68°	9°·5	Cloudy.
„ 24	57°·5	72°	14°·5	Clouds and sunshine.
„ 25	56°	70°	14°	Bright sunshine.
„ 26	58°	70°·5	12°·5	Clouds and sunshine.
„ 27	58°	68°·5	10°·5	Clouds and sunshine.
„ 28	59°	70°	11°	Bright sunshine.
„ 29	59°	74°·5	15°·5	Cloudy.
„ 30	60°	74°	14°	Clouds and sunshine.

MEAN TEMPERATURE.

	Mean daily minimum tempera- ture.	Mean daily maximum tempera- ture.	Mean daily range.
October, 1861	61°·6	69°·7	8°·1
11 days of November . .	52°·4	60°	7°·6
December	47°·8	55°·5	7°·8
January, 1862	44°·6	52°·7	8°·1
February	46°·6	55°·6	9°·0
March	50°·6	60°·6	10°·1
April	55°·5	68°·2	12°·7

CONDITION OF THE WEATHER.

Number of days	October.	November.*	December.	January.	February.	March.	April.	Total.
When the sun shone in a cloudless sky	20	9	15	8	8	8	7	75
When the sun shone, with clouds .	4	5	9	10	7	9	12	56
Which were entirely cloudy, without rain	0	0	3	2	5	1	4	15
When it rained little or much	7	0	4	11	8	13	7	57
<hr/>								
Of the rainy days,								203
The sun shone at intervals during	2	3	2	4	5	3	5	24
The sun never shone during	5	4	2	7	3	10	2	33
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Therefore, the total number of days	5	4	5	9	8	11	6	57
during which we were entirely deprived of the sun's rays were								48

IV.

METEOROLOGICAL OBSERVATIONS,

NOTED BY MYSELF, DURING THE WINTER 1862-63.

THE house then inhabited was situated on the western
y, almost on a level with, and about one hundred
yards from, the sea. The thermometer, the same as last
year, was suspended against the north wall of the house,
at an elevation of about six feet from the ground.

Date.	Mini- mum.	Maxi- mum.	Daily range.	Observations.
1862.				
Nov. 1	58°	64°	6°	Rain. Cloudy.
" 2	56°	67°	11°	Bright sunshine.
" 3	58°	69°	11°	Rain. Clouds and sunshine.
" 4	55°	65°	10°	Clouds and sunshine.
" 5	54°·5	69°	14°·5	Clouds and sunshine.
" 6	54°	68°	14°	Clouds and sunshine. Rain.
" 7	53°·5	68°	14°·5	Bright sunshine.
" 8	52°	63°·5	11°·5	Clouds and sunshine.
" 9	50°·5	63°	12°·5	Bright sunshine.
" 10	50°	62°	12°	Clouds and sunshine.
" 11	51°	58°	9°	Rain. Cloudy.
" 12	46°	58°	12°	Rain. Clouds and sunshine.
" 13	50°·5	66°	15°·5	Rain. Cloudy.

Date.	Mini- mum.	Maxi- mum.	Daily range.	Observations.
1862.				
Nov. 14	57°	66°	9°	Rain. Cloudy.
„ 15	50°	60°	10°	Bright sunshine.
„ 16	51°	60°	9°	Clouds and sunshine. R
„ 17	50°	60°	10°	Clouds and sunshine. R
„ 18	48°·5	60°	11°·5	Clouds and sunshine. T shocks of earthquake.
„ 19	45°	56°	11°	Clouds and sunshine.
„ 20	45°	58°	13°	Clouds and sunshine. R
„ 21	47°·5	54°	6°·5	Cloudy. Rain.
„ 22	44°·5	57°	12°·5	Clouds and sunshine.
„ 23	45°	52°	7°	Rain. Clouds and sunsh
„ 24	45°	56°	11°	Rain. Clouds and sunsh
„ 25	47°	50°	3°	Rain. Cloudy.
„ 26	46°	53°	7°	Clouds and sunshine. R
„ 27	46°	53°	7°	Bright sunshine.
„ 28	44°	52°	8°	Bright sunshine.
„ 29	47°·5	54°	6°·5	Rain. Cloudy.
„ 30	48°	55°	7°	Rain. Cloudy.
Dec. 1	46°	54°·5	8°·5	Rain. Cloudy.
„ 2	44°	49°	5°	Rain. Cloudy.
„ 3	42°	54°	12°	Clouds and sunshine.
„ 4	45°	52°	7°	Cloudy. Rain.
„ 5	45°	52°	7°	Bright sunshine.
„ 6	44°	51°	10°	Bright sunshine.
„ 7	44°	55°	11°	Clouds and sunshine.
„ 8	45°	55°	10°	Clouds and sunshine.
„ 9	44°	52°·5	8°·5	Clouds and sunshine.
„ 10	43°	53°	10°	Clouds and sunshine.
„ 11	45°	53°	8°	Clouds and sunshine.
„ 12	47°	55°·5	8°·5	Rain. Clouds and sunsh

Date.	Mini- mum.	Maxi- mum.	Daily range.	Observations.
1862.				
ec. 13	40°·5	55°	14°·5	Bright sunshine.
" 14	40°	51°·5	11°·5	Bright sunshine.
" 15	39°	52°	13°	Bright sunshine.
" 16	42°	53°	11°	Clouds and sunshine.
" 17	40°	50°	10°	Bright sunshine.
" 18	40°	52°·5	12°·5	Clouds and sunshine.
" 19	42°	49°	7°	Bright sunshine.
" 20	38°·5	56°·5	18°	Bright sunshine. Sirocco. in afternoon.
" 21	39°	51°	12°	Bright sunshine.
" 22	35°	50°	15°	Bright sunshine.
" 23	40°	46°	6°	Clouds and sunshine.
" 24	31°	42°	11°	Bright sunshine.
" 25	33°	45°	12°	Bright sunshine.
" 26	39°	48°	9°	Bright sunshine.
" 27	39°·5	53°	13°·5	Clouds and sunshine.
" 28	42°	53°	11°	Clouds and sunshine.
" 29	48°	56°	8°	Clouds and sunshine.
" 30	46°·5	51°	4°·5	Rain. Cloudy.
" 31	45°	52°	7°	Cloudy.
1863.				
m. 1	47°·5	56°	8°·5	Rain. Cloudy.
" 2	45°	56°	11°	Clouds and sunshine.
" 3	45°	52°	7°	Rain. Cloudy.
" 4	41°	52°	11°	Clouds and sunshine. Rain.
" 5	46°	53°	7°	Rain. Cloudy.
" 6	48°	55°	7°	Rain. Cloudy.
" 7	45°·5	56°	10°·5	Rain. Cloudy.
" 8	41°	49°	8°	Clouds and sunshine.
" 9	36°	47°	11°	Bright sunshine.

Date.	Mini- mum.	Maxi- mum.	Daily range.	Observations.
1863.				
Jan. 10	38°	47°	9°	Rain. Cloudy.
„ 11	44°	50°	6°	Rain. Clouds and sunshine.
„ 12	38°	48°	10°	Bright sunshine.
„ 13	35°·5	46°	10°·5	Clouds and sunshine.
„ 14	40°	51°·5	11°·5	Cloudy. Rain.
„ 15	42°	53°	11°	Rain. Cloudy.
„ 16	43°	54°	11°	Rain. Cloudy.
„ 17	38°	52°·5	14°·5	Rain. Clouds and sunshine.
„ 18	43°	52°	9°	Rain. Clouds and sunshine.
„ 19	38°	49°	11°	Bright sunshine.
„ 20	40°	54°	14°	Clouds and sunshine.
„ 21	39°	54°	15°	Bright sunshine.
„ 22	37°	51°	14°	Clouds and sunshine.
„ 23	43°	53°	10°	Clouds and sunshine.
„ 24	42°	57°	15°	Clouds and sunshine.
„ 25	43°	52°	9°	Bright sunshine.
„ 26	36°	50°	14°	Bright sunshine.
„ 27	37°	49°·5	12°·5	Bright sunshine.
„ 28	41°	54°	13°	Clouds and sunshine.
„ 29	39°	50°	11°	Bright sunshine.
„ 30	40°	51°	11°	Clouds and sunshine.
„ 31	41°	56°·5	15°·5	Clouds and sunshine.
Feb. 1	42°	52°	10°	Bright sunshine.
„ 2	42°	51°	9°	Bright sunshine.
„ 3	43°	59°	16°	Clouds and sunshine.
„ 4	45°	58°	13°	Clouds and sunshine.
„ 5	42°	53°	11°	Clouds and sunshine.
„ 6	42°	53°	11°	Clouds and sunshine.
„ 7	43°	59°	16°	Clouds and sunshine.
„ 8	46°	54°	8°	Clouds and sunshine.

Date.	Mini- mum.	Maxi- mum.	Daily range.	Observations.
863.				
b. 9	41°	57°	16°	Clouds and sunshine.
10	43°	59°	16°	Bright sunshine.
11	40°	51°	11°	Bright sunshine.
12	39°	49°	10°	Bright sunshine.
13	38°·5	49°	10°·5	Bright sunshine.
14	40°	50°	10°	Bright sunshine.
15	41°	53°·5	12°·5	Clouds and sunshine.
16	38°	49°	11°	Clouds and sunshine.
17	31°	50°	19°	Clouds and sunshine.
18	37°	54°	17°	Clouds and sunshine.
19	40°	52°	12°	Bright sunshine.
20	35°	56°	21°	Clouds and sunshine.
21	37°	51°·5	14°·5	Bright sunshine.
22	35°·5	52°	16°·5	Clouds and sunshine.
23	37°	52°	15°	Clouds and sunshine.
24	40°	50°	10°	Cloudy.
25	42°	54°	12°	Bright sunshine.
26	37°	52°	15°	Bright sunshine.
27	39°	55°	16°	Clouds and sunshine.
28	39°·5	59°	19°·5	Clouds and sunshine.
1	41°	55°	14°	Bright sunshine.
2	37°	53°	16°	Bright sunshine.
3	41°	53°	12°	Bright sunshine.
4	41°·5	57°	15°·5	Clouds and sunshine. Rain.
5	48°	60°	12°	Clouds and sunshine.
6	49°	56°	7°	Rain. Cloudy.
7	47°	62°	15°	Rain. Clouds and sunshine.
8	46°	62°	16°	Clouds and sunshine.
9	46°	61°	15°	Clouds and sunshine. Rain.
10	46°	58°	12°	Bright sunshine.

Date.	Mini- mum.	Maxi- mum.	Daily range.	Observations.
1863.				
Mar. 11	42°·5	53°	10°·5	Rain. Cloudy.
„ 12	41°	52°	11°	Bright sunshine.
„ 13	43°	49°	6°	Rain. Cloudy.
„ 14	40°	53°	13°	Clouds and sunshine.
„ 15	40°	58°	18°	Clouds and sunshine. R
„ 16	39°	57°	18°	Clouds and sunshine.
„ 17	40°	62°	22°	Clouds and sunshine.
„ 18	43°	56°	13°	Bright sunshine.
„ 19	44°	63°	19°	Cloudy. Rain.
„ 20	46°	61°	15°	Clouds and sunshine.
„ 21	42°	58°	16°	Clouds and sunshine.
„ 22	45°	61°·5	16°·5	Clouds and sunshine.
„ 23	41°	60°	19°	Clouds and sunshine.
„ 24	42°	57°	15°	Bright sunshine.
„ 25	43°	56°	13°	Bright sunshine.
„ 26	45°	65°	20°	Clouds and sunshine.
„ 27	43°	60°	17°	Bright sunshine.
„ 28	43°	60°	17°	Bright sunshine.
„ 29	46°	66°	20°	Clouds and sunshine.
„ 30	46°	67°	21°	Clouds and sunshine.
„ 31	49°	68°	19°	Clouds and sunshine.
April 1	48°	66°	18°	Bright sunshine.
„ 2	50°	61°·5	14°·5	Bright sunshine.
„ 3	47°	67°	20°	Clouds and sunshine.
„ 4	49°	67°	18°	Clouds and sunshine.
„ 5	50°	68°	18°	Clouds and sunshine.
„ 6	47°	62°	15°	Bright sunshine.
„ 7	48°	68°	20°	Clouds and sunshine.
„ 8	46°·5	66°	19°·5	Clouds and sunshine.
„ 9	50°	66°	16°	Bright sunshine.

Date.	Mini- mum.	Maxi- mum.	Daily range.	Observations.
1863.				
April 10	50°	70°	20°	Bright sunshine.
" 11	51°	70°·5	19°·5	Rain. Clouds and sunshine.
" 12	53°	68°	15°	Rain. Clouds and sunshine.
" 13	51°	65°	14°	Rain. Cloudy.
" 14	52°	74°	22°	Clouds and sunshine.
" 15	50°	70°	20°	Bright sunshine.
" 16	52°	69°	17°	Bright sunshine.
" 17	50°	68°	18°	Bright sunshine.
" 18	49°	70°·5	21°·5	Clouds and sunshine. Rain.
" 19	50°	68°	18°	Bright sunshine.
" 20	50°	72°	22°	Clouds and sunshine.
" 21	55°·5	71°	15°·5	Clouds and sunshine.
" 22	53°	70°	17°	Clouds and sunshine.
" 23	58°	71°·5	13°·5	Clouds and sunshine.
" 24	59°·5	75°	15°·5	Clouds and sunshine.
" 25	53°	68°·5	15°·5	Bright sunshine.
" 26	50°·5	68°	17°·5	Bright sunshine.
" 27	52°	73°	21°	Clouds and sunshine.
" 28	56°	68°	12°	Cloudy.
" 29	52°	71°	19°	Clouds and sunshine.
" 30	47°	70°	23°	Clouds and sunshine.

MEAN TEMPERATURE.

	Mean daily minimum tempera- ture.	Mean daily maximum tempera- ture.	Mean rang
November, 1862 . . .	49°·87	59°·88	10°
December „ . . .	41°·74	51°·81	10°
January, 1863 . . .	41°·05	51°·97	10°
February, „ . . .	39°·84	53°·36	13°
March, „ . . .	43°·42	58°·69	15°
April, „ . . .	51°	68°·85	17°

Number of days	November.	December.	January.	February.	March.	April.	Total.
When the sun shone in a cloudless sky .	6	13	8	11	10	11	59
When the sun shone, with clouds .	7	12	10	16	13	14	72
Which were entirely cloudy, without rain .	0	1	0	1	0	1	3
When it rained little or much .	17	5	13	0	8	4	47
<hr/>							
Of the rainy days,							181
The sun shone out at intervals during .	9	1	4	0	4	3	21
The sun never shone during .	8	4	9	0	4	1	26
<hr/>							
Therefore, the total number of days during which we were entirely deprived of the sun's rays, were .	8	5	9	1	4	2	29

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